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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/677,116	09/29/2000	Andrew M. Volk	10559-162001/P8246	2027
20985	7590	10/08/2003	EXAMINER	
FISH & RICHARDSON, PC 4350 LA JOLLA VILLAGE DRIVE SUITE 500 SAN DIEGO, CA 92122			LUU, AN T	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>		
	09/677,116		VOLK ET AL.		
	<b>Examiner</b>		<b>Art Unit</b>		
An T. Luu		2816			

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on 19 August 2003.

2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 1-5,7-9,11-15,20-23 and 27-30 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☒ Claim(s) 30 is/are allowed.

6) ☒ Claim(s) 1-5,7-9,11-15,20-23 and 27-29 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All   b) ☐ Some \* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____
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**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 28-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28 appears to be misdescriptive since an electronic device is seen as element 130 (fig. 7) having a first and second input terminals coupled to a clock generator 40 via lines 62 and 44. Therefore, if the first terminal 62 is connected to ground as required by claim, then the output of the electronic device (132) is nothing but ground potential.

As to claim 29, it is also to be misdescriptive since electronic device 130 of figure 7 is shown to be connected to the clock generator 40 regardless with the type of signal that the clock generator issues (i.e., single-ended or differential).

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by the Wong et al. reference (U.S. Patent 6,407,591).

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Wong discloses in figure 2 discloses an apparatus comprising a first terminal to receive a first clock input signal XXCLK0; a second terminal to receive a second clock input signal XXCLKREF; a detector (207a, 209a and 219) to receive the second clock input signal, wherein the detector is configured to output a clock mode signal (output of 219) as a function of a voltage potential of the second channel of the clock signal (col. 3, lines 15-28 and 50-57); a first circuit 107 coupled to the first terminal to generate a first single-ended clock signal of the same frequency as the first clock input signal (col. 3, lines 50-57); a second circuit 205 coupled to the first terminal and to the second terminal to generate a second single-ended clock signal of the same frequency as the first clock input signal (col. 2, lines 27-63); and a selector 217 configured to select the first or the second single-ended clock signal based upon the clock mode signal as required by claim 11. It is inherent that there exists a clock generator coupled at least to the first terminal since the first terminal is for receiving a first clock input signal as recited earlier in claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9 and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by the Wong et al. reference (U.S. Patent 6,407,591).

Wong discloses al the claimed invention (see the rejection of claim 11 noted above) except for having a device, a clock compensator including a clock feedback matching circuit, coupled to the output of the clock mode signal as required by claim. It would have been obvious to one skilled in the art to connect a device (i.e., clock compensator) to the circuit outputting a clock mode signal since the circuit outputting a clock mode signal is seen as an intermediate component for providing a signal which is suitable for further processing or compatible to device along the processing line.

As to claim 22, it is rejected for reciting a method derived from an apparatus of claim 9.

As to claim 23, col. 2, lines 34-38 and col. 3, lines 16-21, disclose the clock mode is high when the signal at the second input is a constant ground potential (i.e., 0 volt or Ground is seen as constant DC level).

7. Claims 1-5, 7-8, 12-15, 20-21 and 27-29 are rejected under 35 U.S.C. 102(e) as being anticipated by the Wong et al. reference (U.S. Patent 6,407,591) in view of the Wetherell reference (U.S. Patent 5,557,242).

Wong discloses in figure 2 an apparatus for carrying out a method of receiving an input clock signal XXCLK0 representing either single-ended or differential clock signal; determining whether the input clock signal is single-ended or differential clock signal (circuit 201 and associated description, col. 2, lines 19-38); and automatically generating an output clock signal (output of 217) based on the determination as required by claim 1. Wong does not teach a method for compensating for delay between the input clock signal and the output clock signal as required by claim. A PLL circuit is commonly known to one skilled in the art to compensate an

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input signal and an output signal. Wetherell discloses in figure 4 a PLL circuit for compensating between input and output signals having capability of dielectric absorption compensation. Thus, it would have been obvious to one skilled in the art to combine these references to produce an output signal having a fast locking time.

As to claim 2, column 3, lines 15-28 and 50-57, discloses the output of MUX 217 being a single-ended output clock signal when the input clock signal XXCLK0 is determined to be a differential clock signal.

As to claim 3, it is inherent that the generated output clock signal has the same frequency as the input clock signal because element 217 is a multiplex which is controlled or programmed to pass a selective signal input.

As to claim 4, the scope of claim is similar to that of claim 1. Therefore, it is rejected for the same reason set forth above. It is noted that column 1, lines 47-51, indicates XXCLK0 being a single-ended clock signal and XXCLKREF being a ground potential.

As to claim 5, element 219 generates the clock mode based on the determination.

As to claim 7, the scope of claim is similar to that of claim 2. Therefore, it is rejected for the same reason set forth above.

As to claim 8, the scope of claim is similar to that of claim 3. Therefore, it is rejected for the same reason set forth above.

As to claim 12, the scope of claim is similar to that of claim 1. Thus, it is rejected for the same reason set forth above. It is noted that "the master clock signal" and "the second clock signal" are seen to represent the same signal; and it would have been obvious to one skilled in

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the art to select a signal from either the first or the second circuit, as required by application, to be a reference signal for the purpose of synchronization, delaying, matching or compensation.

As to claims 13 and 14, the circuit disclosed by Wetherell is a PLL circuit.

As to claim 15, the selector 217 in figure 2 is a MUX.

As to claim 20, the scope of claim is similar to that of claim 1. Therefore, it is rejected for the same reason set forth above.

As to claim 21, the scope of claim is similar to that of claim 10. Therefore, it is rejected for the same reason set forth above.

As to claim 27, the scope of claim is similar to that of claim 13. Therefore, it is rejected for the same reason set forth above.

As to claims 28-29, to the extent to be understood, Examiner believes the scope of these claims are similar to that of claim 27. Therefore, they are rejected for the same reason set forth above.

#### ***Response to Arguments***

8. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

#### ***Allowable Subject Matter***

9. Claim 30 is allowed.

10. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose an apparatus and/or method thereof comprising elements being configured as required by claims. Specifically, none of the prior art discloses, among other

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things, "compensating includes providing adjustable feedback as a function of whether the received clock signal is the single-ended clock signal or the differential clock signaling circuit in a clock compensator" as required by claim 30.


### *Conclusion*

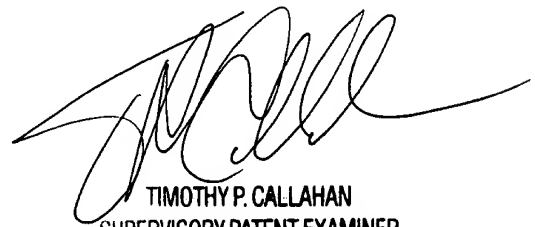
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to An T. Luu whose telephone number is 703-308-4922. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 703-308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

An T. Luu  
9-3-2003 

  
TIMOTHY P. CALLAHAN  
SUPERVISORY PATENT EXAMINER  
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